

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) Folding machine to fold a web material along transverse folding lines, comprising at least one folding roller provided with at least one gripping member to mechanically grasp the web material along a folding line; and a gaseous flow member associated with said at least one gripping member to insert the web material into said at least one gripping member which grasps the web material.

2. (Previously Presented) Machine according to claim 1, wherein said gaseous flow member is a suction member to draw the web material towards said at least one gripping member.

3. (Previously Presented) Machine as claimed in claim 1 or 2, further comprising two counter-rotating folding rollers with parallel axes, each of said counter-rotating folding rollers being provided with at least one gripping member.

4. (Previously Presented) Folding machine as claimed in claim 2, wherein each said suction member is associated with a device to activate and deactivate suction as a function of an angular position of a respective folding roller of said at least one folding roller, the suction

member associated with each said respective folding roller being active for a fraction of a complete turn of the respective folding roller.

5. (Previously Presented) Folding machine as claimed in claim 2, wherein said at least one gripping member comprises a movable element cooperating with a first stop, the web material being sucked by said suction member between said movable element and said stop.

6. (Previously Presented) Folding machine as claimed in claim 5, wherein said movable element cooperates with a second stop, said first stop and said second stop defining a slit essentially parallel to an axis of rotation of a respective folding roller of said at least one folding roller, the movable element extending in said slit.

7. (Previously Presented) Folding machine as claimed in claim 3, wherein each of said at least one folding roller comprises at least one cavity substantially parallel to an axis of rotation and opens on a cylindrical surface of the folding roller, inside which a respective gripping member is housed, and wherein a suction duct terminates in said cavity.

8. (Previously Presented) Folding machine as claimed in claim 7, wherein each of said at least one cavity is provided with means to limit effect of suction on one side

of a movable element associated with said at least one gripping member, between the movable element and said first stop.

9. (Previously Presented) Folding machine as claimed in claim 8, wherein a first block defining said first stop is fixed in said cavity.

10. (Previously Presented) Folding machine as claimed in claim 6, wherein a second block defining said second stop is fixed in said cavity.

11. (Previously Presented) Folding machine as claimed in claim 9, wherein said first block delimits a suction compartment in connection with said suction duct and is provided with a plurality of suction holes distributed along a longitudinal extension of said first block and terminating on a surface of said first block positioned on an opposite side with respect to said suction compartment and facing the movable element.

12. (Previously Presented) Folding machine as claimed in claim 11, wherein said movable element is supported by a shaft oscillating around its longitudinal axis, supported in said cavity, and wherein said first block has a sealing surface cooperating with said oscillating shaft, said holes terminating between the first stop defined by said first block and said sealing surface.

13. (Previously Presented) Folding machine as claimed in claim 12, wherein each of said at least one gripping member includes an elastic strip.

14. (Previously Presented) Folding machine as claimed in claim 13, wherein said elastic strip is integral with said oscillating shaft and cooperates with said first stop.

15. (Previously Presented) Folding machine as claimed in claim 3, wherein each of said counter-rotating folding rollers is associated with a sliding block with a communication channel between a suction line and a suction duct in a respective folding roller of said at least one folding roller, said sliding block resting on a sliding surface of the respective folding roller.

16. (Previously Presented) Folding machine as claimed in claim 15, wherein said sliding surface is disposed on a front surface of the respective folding roller on which said suction duct terminates.

17. (Previously Presented) Folding machine as claimed in claim 15, wherein said sliding block is resiliently pushed against said sliding surface.

18. (Previously Presented) Folding machine as claimed in claim 15, wherein said sliding block has an elongated aperture communicating with the respective folding roller.

19. (Previously Presented) Folding machine as claimed in claim 4, wherein each said device to activate and deactivate suction is adjustable, to adjust positions in which suction is opened and closed as a function of the angular position of the respective folding roller.

20. (Previously Presented) Folding machine as claimed in claim 15, wherein said sliding block is disposed in a specific angular position adjustable with respect to the respective folding roller.

21. (Previously Presented) Folding machine as claimed in claim 20, wherein said sliding block is engaged with a flange coaxial to the respective folding roller, the angular position of which around the axis of the folding roller is adjustable.

22. (Previously Presented) Folding machine as claimed in claim 1, further comprising a cutting unit that cuts the web material into single sheets, which are folded by said folding roller, is associated with said folding roller.

23. (Previously Presented) Folding machine as claimed in claim 22, wherein said cutting unit has two counter-rotating cylinders with axes parallel to each other and to the folding roller, which define between them a nip through which the web material is fed, and provided with blades and counter-blades to cut the web material, and

6391/USSN 10/510,570
Group Art Unit 3721

wherein one of said two counter-rotating cylinders forming the cutting unit forms with the folding roller a nip through which the cut web material is fed.

24. (Previously Presented) Folding machine as claimed in claim 1, wherein said at least one folding roller cooperates with a counter-roller, on which a projection is provided extending parallel to the axis of said rollers, the position of said projection being synchronized with respect to the position of said gripping member, to facilitate pick-up of said web material by suction.

25. (Previously Presented) Folding machine as claimed in claim 24, wherein a corresponding projection is provided on each of said at least one folding roller, each projection of one of said at least one folding roller cooperating with a gripping member of the opposite folding roller.

26. (Withdrawn) Folding machine as claimed in claim 1, wherein said gaseous flow member includes an air ejection member to push the web material inside said at least one gripping member.

27. (Withdrawn) Folding machine as claimed in claim 26, wherein on each said at least one folding roller an air ejection member and a gripping member are provided, arranged on diametrically opposed positions.

28. (Withdrawn) Folding machine as claimed in claim 26, wherein said gaseous flow member includes at least one air nozzle.

29. (Withdrawn) Folding machine as claimed in claim 28, wherein said at least one air nozzle is a linear nozzle extending parallel to the axis of the at least one folding roller.

30. (Withdrawn) A method for folding a web material according to transverse folding lines, comprising:

- providing at least one folding roller;
 - providing on said at least one folding roller at least one gripping member;
 - rotating said at least one folding roller around its axis;
 - feeding the web material to said at least one folding roller;
 - engaging the web material with said at least one gripping member of said at least one folding roller;
- wherein the web material is inserted into said at least one gripping member by means of a gaseous flow.

31. (Withdrawn) Method as claimed in claim 30, wherein said web material is inserted into said at least one gripping member by suction.

32. (Withdrawn) Method as claimed in claim 30, wherein said web material is inserted into said at least one gripping member by means of an air jet.

33. (Withdrawn) Method as claimed in claim 30 or 31 or 32, further comprising two counter-rotating folding rollers with parallel axes, which define a nip through which the web material is fed, each of said at least one folding roller being provided with one of said at least one gripping member, and wherein the web material is engaged alternately with a first one of said at least one gripping member of a first one of said at least one folding roller and with a second one of said at least one gripping member of a second one of said at least one folding roller, to fold said web material in a zigzag.

34. (Withdrawn) Method as claimed in claim 33, wherein activating the gaseous flow associated with each of said at least one gripping member in an angular position of a respective folding roller upstream of the nip between the first one of said at least one folding roller and a second one of said at least one folding roller, and deactivating said gaseous flow after the web material has been engaged by the respective gripping member.

35. (Withdrawn) Method as claimed in claim 34, wherein said gaseous flow is deactivated when the respective

gripping member has passed beyond the nip between said first one of said at least one folding roller and said second one of said at least one folding roller.

36. (Withdrawn) Method as claimed in claim 30, further comprising pinching the web material between a stop, fixed with respect to a respective one of the at least one folding roller, and a movable element.

37. (Withdrawn) Method as claimed in claim 36, wherein said gaseous flow is concentrated between the stop and said movable element.

38. (Withdrawn) Method as claimed in claim 30, further comprising facilitating of formation of a fold in said web material in front of said at least one gripping member.

39. (Withdrawn) Method as claimed in claim 38, wherein folding is facilitated by a projection provided on a roller positioned opposite to said first one of said at least one first folding roller.

40. (Withdrawn) Method as claimed in claim 39, wherein said gripping member does not cooperate mechanically with said projection.